

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM
STATEMENT OF INVESTMENT POLICY**

**FOR
LOW DURATION FIXED INCOME PROGRAM**

February 14, 2011~~December 15, 2008~~

This policy is effective immediately upon adoption and supersedes all previous Low Duration Fixed Income Program, Dollar-Denominated Fixed Income Limited Duration Program, Dollar-Denominated Fixed Income High Quality Libor Program, Dollar-Denominated Fixed Income Short Duration Program, and Internally Managed Dollar-Denominated Short-Term Program policies.

I. PURPOSE

The CalPERS Total Fund Statement of Investment Policy adopted by the CalPERS Investment Committee ("Committee"), sets forth CalPERS overarching investment purposes and objectives with respect to all its investment programs.

This document sets forth the investment policy ("Policy") for the Low Duration Fixed Income Program ("LD Program"). The design of this Policy ensures that investors, managers, consultants, and other participants selected by the California Public Employees' Retirement System ("CalPERS") take prudent and careful action while managing the Programs. Additionally, use of this policy assures sufficient flexibility in managing investment risks and returns associated with this Program.

This Policy is the controlling document for the following Programs:

- A. Attachment A – Dollar-Denominated Fixed Income Limited Duration Program;
 - 1. Attachment A1 – Dollar-Denominated Fixed Income [High Quality LIBOR](#) Program ("HQL Program");
 - 2. Attachment A2 – Dollar-Denominated Fixed Income [Short Duration Program](#) ("SD Program"); and
 - 3. Attachment A3 – Dollar-Denominated Fixed Income Low Liquidity Enhanced Return Fund (LLER Program); and
 - 4. Attachment ~~A3~~ A4 – Eligible Repo Counterparties.
- B. Attachment B – Internally Managed Dollar-Denominated Short-Term Program ("ST Program"); and

- C. Attachment C – Short Duration Programs Comparison.

II. STRATEGIC OBJECTIVE

The LD Programs shall be managed to accomplish the following:

- A. Diversify CalPERS overall investment programs;
- B. Dampen the overall risk of CalPERS investment programs; and
- C. Enhance CalPERS total returns.

III. RESPONSIBILITIES

- A. CalPERS Investment Staff (“Staff”) is responsible for the following:

1. All aspects of portfolio management and oversight including monitoring, analyzing, and evaluating performance relative to the appropriate benchmark.
2. Reporting on the performance and risk metrics for each individual LD Program to the Committee, at least annually for externally managed, and quarterly for internally managed LD Programs.
3. Monitoring the internal and [external managers](#) in the implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of Guidelines and Policies at the next Committee meeting, ~~or sooner if deemed necessary.~~ All events deemed materially important will be reported to the Board immediately. These reports shall include explanations of any violations and appropriate recommendations for corrective action.

- B. The [General Pension Consultant](#) (“Consultant”) is responsible for:

Monitoring, evaluating, and reporting at least annually, to the Committee, on the performance of the LD Programs relative to the appropriate benchmarks and the Policy.

IV. PERFORMANCE OBJECTIVE AND BENCHMARK

- A. The specific performance objective for each LD Program is detailed in the appropriate attachment.

- B. The Benchmark for the Low Duration Fixed Income Program is specified in the Benchmark Modification and Benchmark Details Policy.

V. INVESTMENT APPROACHES AND PARAMETERS

The specific Investment Approaches and Parameters for each LD Program are detailed in the appropriate attachment.

VI. LIMITED DURATION INVESTMENT PROGRAM CHARACTERISTICS

Although ~~both the HQL Program, and SD Programs, and LLER Program~~ are designed to be limited-duration in nature, the ~~two-three~~ investment programs differ in their targeted investment horizon, program objectives, and expected program participants. While the HQL Program is an appropriate investment for numerous CalPERS sub-strategies, the SD Program is designed to be a slightly more aggressively managed limited duration program for participants having a longer investment horizon that allows for higher monthly return volatility in exchange for higher expected long-term alpha. For instance, the SD Program is viewed as an appropriate investment for the “core” portion of the securities lending assets. The LLER Program is designed for participants that require low to no liquidity and will only be appropriate for holdings that are not expected to be liquidated. For instance, the LLER Program is viewed as an appropriate investment for an enhanced equity overlay portfolio when it is a very small allocation of the overall CalPERS Internal/Global Equity asset class and thus will not need to be liquidated.

Given the different investment time horizons, program objectives, and expected program participants, the investment policies that govern the ~~two-three~~ programs do have some major policy differences and multiple minor differences.

The following table summarizes the basic program characteristics.

	High Quality LIBOR	Short Duration Program	<u>LLER Program</u>
Investment Horizon	Less than 30 days	6 - 12 months	<u>Hold to Maturity</u>
Objective	Medium / High Liquidity	Medium Liquidity	<u>Low Liquidity</u>
	Capital Preservation	Total Rate of Return	<u>Total Rate of Return</u>
	Total Rate of Return		
Participants	Global Fixed Income	Securities Lending	<u>Enhanced Equity</u>
	Domestic Equity		<u>Global Fixed Income</u>

	Securities Lending		
Liquidity Requirement	High	Medium	<u>Low to None</u>
Program Duration Constraint	90 Days Max	180 Days Max	<u>270 Days Max</u>
WAL Constraint			
Fixed Rate Securities	90 Days	2 <u>Y</u> ears	<u>3 Years</u>
AAA-Rated Floating Rate Securities	5 Years	7 Years	<u>10 Years</u>
Minimum Credit Quality			
<u>Structured Securities</u>	AAA	BBB	<u>BBB- at Purchase</u>

VII. CALCULATIONS AND COMPUTATIONS

Investors, managers, consultants, and other participants selected by CalPERS shall make all calculations and computations on a market value basis as recorded by CalPERS Custodian, unless otherwise provided in attachments.

~~Each~~The HQL Program and SD Program portfolios under this program will be considered in ~~its~~ their ramp-up period until the portfolio reaches \$1 billion. During the portfolio ramp-up period, calculation of asset and sector diversification limits (see Attachments) will be based on the assumption of a \$1 billion portfolio size.

The LLER Program portfolio under this program will be considered in its ramp-up period until the portfolio reaches \$2 billion. During the portfolio ramp-up period, calculation of asset and sector diversification limits (see Attachments) will be based on the assumption of a \$2 billion portfolio size. The larger ramp-up period portfolio size relative to the HQL and SD Programs is needed due to the larger security concentration nature of the security purchases in the LLER Program. Larger concentration in fewer securities is prudent as long as the LLER Program represents a small portion of the overall assets for the asset class utilizing the LLER Program.

Given the hold to maturity expectation of holding low liquidity securities in the LLER Program, all security calculations will be performed at time of purchase.

VIII. GLOSSARY OF TERMS

Key words used in the policy and attachments are defined in CalPERS Master Glossary of Terms.

Low Duration Fixed Income Program

Approved by the Policy Subcommittee:	April 21, 2008
Adopted by the Investment Committee:	May 12, 2008
Revised by the Policy Subcommittee:	October 20, 2008
Approved by the Investment Committee:	November 17, 2008
Technical Revision to Delete Lehman from Attachment A3:	December 15, 2008
Administrative changes made due to Policy Review Project:	June 16, 2009
Admin changed due to adoption of Benchmark Policy:	October 30, 2009
Revised by the Policy Subcommittee:	December 13, 2010
<u>Approved by the Investment Committee:</u>	<u>February 14, 2011</u>

The following attachments were previously individual policies and are now consolidated into the Global Fixed Income Program policy. The dates below reflect the revision history for each document

Attachment A – Dollar-Denominated Fixed Income Limited-Duration

Dollar-Denominated Fixed Income Short-Duration

Approved by the Policy Subcommittee:	June 13, 2003
Adopted by the Investment Committee:	August 18, 2003
Revised by the Policy Subcommittee:	June 11, 2004
Adopted by the Investment Committee:	August 16, 2004

Name changed to Dollar-Denominated Fixed Income Limited-Duration

Revised by the Policy Subcommittee:	December 9, 2005
Adopted by the Investment Committee:	February 14, 2006

Attachment B – Dollar-Denominated Short-Term Program – Internally Managed

Approved by the Policy Subcommittee:	September 27, 1996
Adopted by the Investment Committee:	November 18, 1996
Revised by the Policy Subcommittee:	June 11, 2004
Adopted by the Investment Committee:	August 16, 2004

**DOLLAR-DENOMINATED FIXED INCOME
LIMITED-DURATION PROGRAM**

February 14, 2011~~December 15, 2008~~

**I. DOLLAR DENOMINATED FIXED INCOME, LIMITED DURATION
INVESTMENT PROGRAM**

- A. The [High Quality LIBOR](#) Program (“HQL Program”) is designed to be a limited [duration](#), highly liquid program that can be used by CalPERS Portfolio Managers as a way to invest in a limited duration asset that provides low volatility versus a floating-rate based benchmark.
1. Uses for the HQL Program include, but are not limited to:
 - a. a stand-alone asset in the fixed income mortgage portfolio as a proxy for high coupon mortgage pass-throughs;
 - b. an asset in the securities lending portfolio that will be managed internally;
 - c. the cash component of mortgage dollar roll transactions;
 - d. the cash component of [interest rate swap](#) transactions; and
 - e. the cash component of the Equity Dynamic Completion Fund transactions.
 - f. the cash component of the Synthetic Enhanced Equity Strategy.
 2. The Policy for the HQL Program is Attachment A1.
- B. The Short Duration Program (“SD Program”) is designed to earn a return premium versus traditional limited duration assets through a modest increase in portfolio duration and by purchasing a broader universe of limited duration [securities](#) than those typically available to traditional money market portfolios. Expanding the allowable universe of limited duration securities provides the opportunity to increase return by taking advantage of some structural aspects inherent in the limited duration sector. Traditionally there are three strategies that provide incremental alpha opportunities for limited duration investors. These strategies include extending duration out the [yield curve](#), accepting lower liquidity, and investing down the credit spectrum. The SD Program will be designed to take advantage of all three strategies, as well as other strategies that add

incremental value, within a controlled manner and will result in a modest increase in risk relative to the HQL Program.

1. Uses for the SD Program include, but are not limited to:
 - a. the “core” asset of the internally managed securities lending portfolio;
 - b. a stand-alone asset in the fixed income mortgage portfolio as a proxy for high coupon mortgage pass-throughs; and
 - c. the cash component of mortgage dollar roll transactions and interest rate [swap](#) transactions.
2. The key determinant for the use of the SD Program is the identification of a pool of funds that require less liquidity than that provided by the HQL Program. It is anticipated that the majority of CalPERS sub-strategies desiring limited-duration assets will use both the HQL Program and SD Program at various times depending on liquidity needs.
3. The Policy for the Dollar-Denominated Fixed Income, Short Duration Program is Attachment A2.

C. The Low Liquidity Enhanced Return Program (“LLER Program”) is designed to earn a substantial return premium versus traditional limited duration assets by purchasing a broader universe of limited duration securities than those typically available to traditional money market portfolios. Expanding the allowable universe of limited duration securities provides the opportunity to increase return by taking advantage of some structural aspects inherent in the limited duration sector. Traditionally there are three strategies that provide incremental alpha opportunities for limited duration investors. These strategies include extending duration out the yield curve, accepting lower liquidity, and investing down the credit spectrum. The LLER Program will be designed to take advantage of all three strategies, as well as other strategies that add incremental value, and will result in a substantial increase in risk and illiquidity relative to the HQL and SDF Programs.

2. Uses for the LLER Program include, but are not limited to:
 - a. a stand-alone asset in the fixed income high yield mortgage or high yield asset-backed portfolios; and
 - b. the fixed income return component of the Synthetic

Enhanced Equity Strategy.

2. The key determinant for the use of the LLER Program is the identification of a pool of funds that have no expected liquidity requirement.
3. The Policy for the Dollar-Denominated Fixed Income, Limited Liquidity Enhanced Return Program is Attachment A3.

**DOLLAR-DENOMINATED FIXED INCOME
HIGH QUALITY LIBOR PROGRAM**

February 14, 2011~~December 15, 2008~~

I. PERFORMANCE OBJECTIVE AND BENCHMARK

The performance objective for the Dollar-Denominated Fixed Income [High Quality LIBOR](#) Program (“HQL Program”) is to exceed the return of a [Federal Funds](#) based index while maintaining a high level of diversification and liquidity.

The benchmark for the Dollar-Denominated Fixed Income High Quality Libor Program is specified in the Benchmark Modification and Benchmark Details Policy.

II. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approach

Identifying opportunities across limited duration [bond](#) market sectors and investing where risks are both understood and manageable while maintaining credit quality, [duration](#), [convexity](#), and liquidity as specified in the High Quality Libor Policy (“Policy”) is the investment approach of the HQL Program. Given the mandate for the HQL Program to be a high liquidity, preservation of capital fund, measured versus a Federal Funds based benchmark, it is expected that AAA rated [Floating Rate Securities](#) will represent a majority of the HQL Program holdings.

B. Specific Risk Parameters

CalPERS shall manage the following major categories of fixed income risk:

1. [Benchmark Risk](#) was reviewed by the Consultant who determined that the Federal Funds based index was the appropriate reference point.
2. [Interest Rate Risk](#) will be controlled by limiting duration to not exceed 90 days due to the stable return mandate of the HQL Program. Decisions shall be managed using historical [real return relationships](#) and [economic analysis](#).

Maturity and Duration Constraints

Asset	Maturity Limits
US Treasury & Govt. Sponsored	91 days
Repurchase Agreements	
US Treasury/ Agency Collateral	3 months
Non US Treasury/ Agency Collateral	1 month
AAA Rated Fixed Rate Structured Securities	90 day WAL
AAA Rated Floating Rate Structured Securities	5 year WAL
Money Market Securities	
> = A1/P1	90 days
< A1/P1	35 days
Corporate & Yankee Sovereign (AAA rated)	90 days
Corporate & Yankee Sovereign (less than AAA rated)	35 days

3. [Yield Curve Risk](#) must be managed in a controlled, disciplined fashion by employing [break-even](#), economic analysis, [partial duration](#), and [principal component analysis](#).
4. [Convexity Risk](#) must be managed using [option-adjusted](#) and [scenario analyses](#).
5. [Sector Risk](#) and [Asset Risk](#) will be controlled using the below ranges. Based on the economic outlook, [historical factors](#), and break-even analysis, Staff shall estimate the impact on various sectors' and assets' spreads and make allocations accordingly.

Asset and Sector Diversification

Asset / Counterparty	Diversification Limits
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	25%
AAA Rated Structured Securities	10%
Corporate & Yankee Sovereign (AAA rated)	10%
Corporate & Yankee Sovereign (less than AAA rated)	5%
Money Market Securities	
> = A1/P1 (next business day maturity)	15%
> = A1/P1	10%
< A1/P1 (next business day maturity)	10%
< A1/P1	5%

Sector	Diversification Limits
Floating Rate	No Restriction
Fixed Rate (greater than 35 day maturity)	20%
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	No Restriction
AAA Rated Fixed Rate Structured Securities	20%
AAA Rated Floating Rate Structured Securities	No Restriction
Credit Card Collateral	75%
Auto Collateral	75%
Student Loan Collateral	75%
Any Other Individual Structured Collateral Sector	50%
Any One Corporate Sector	15%
Total Yankee Sovereign Sector	15%
Total Corporate/Yankee Sovereign	50%
Money Market Securities	
> = A1/P1	No Restriction
< A1/P1 (next business day maturity)	50%
< A1/P1	25%

6. [Credit Risk](#) will be controlled by requiring minimum [ratings](#) by asset type, outlined in the table below. A downgrading of a security, which causes a violation in the guidelines, shall not require an immediate sale if the [Senior Investment Officer](#) of Global Fixed Income believes that no further risk of credit deterioration exists or the sale diminishes the total return to CalPERS. The CalPERS internal research staff and the external rating agencies shall analyze such situations to ensure that an informed decision is made. The following is the minimum quality for each of the sectors.

Asset / Counterparty	Minimum Credit Rating
US Treasury & Govt. Sponsored	AAA
Repurchase Agreements	A1/P1
Structured Securities	AAA
Money Market Securities	A2/P2
Corporate Securities	Baa1/BBB+
Yankee Sovereign Securities	A3/A-

7. [Structure Risk](#) must be managed using option-adjusted and scenario analysis.
8. [Reinvestment Risk](#) must be managed through [call risk](#) and cash flow analysis.
9. [Liquidity Risk](#) is reduced due to the requirement of the HQL Program's mandate as a liquid, limited duration program, and high liquidity.
10. [Currency Risk](#) is reduced by requiring all securities to be denominated in U.S. dollars.

C. Restrictions and Prohibitions

1. Except for U.S. Treasuries and Agencies, investments in a AAA-rated single [issuer](#) with a maturity that exceeds one business day shall not exceed 10% of the HQL Program during the holding period for such investment. Exceptions to this restriction are 2a-7 money market funds, State Street Bank's STIF, and repurchase agreements (See Section II.B.5.) For structured securities, each separate trust (pool of assets) is defined as a separate issuer.
2. Investments in any non-AAA rated single issuer with a maturity that exceeds one business day shall not exceed 5% of the HQL Program during the holding period for such investment.
3. The option-adjusted duration of the HQL Program shall not exceed 90 days.
4. Non-investment grade securities are prohibited.
5. [Collateralized Bond Obligation](#) (CBO) and [Collateralized Loan Obligation](#) (CLO) investments are prohibited.
6. Tobacco company investments are prohibited.
7. [Privately Placed Investment Grade](#) Corporate Bonds are prohibited.
8. [Collateralized Mortgage Obligations](#) (CMO) are prohibited.
9. [Adjustable rate securities](#), which are not allowed, include but are not limited to, the following:

- a. [Inverse floaters](#), leveraged floaters and any securities whose interest rate reset provisions are based on a formula that magnifies changes in interest rates.
- b. Constant Maturity Treasury (CMT) floaters and securities whose interest rate reset provisions are tied to long-term interest rates so that a change in the slope of the [yield curve](#) could result in the value of the instrument falling below par.
- c. Dual Index Floaters and securities whose interest reset provisions are tied to more than one index so that a change in the relationship between these indices may result in the value of the instrument falling below par.
- d. Cost of Funds Index (COFI) floaters, prime floaters, and securities whose interest rate reset provision is tied to an index materially lagging short-term interest rates.

D. Authorized Securities

1. U.S. Treasury and [Government Sponsored Securities](#) (including derivative securities whose deliverable instrument is a U.S. Treasury or government obligation) excluding mortgages and [mortgage-backed securities \(MBS\)](#).
2. Money market instruments, including obligations of the U.S. Government and its agencies, and domestic money market instruments ([Commercial Paper](#), bank time deposits, [Certificates of Deposit](#), and [Banker's Acceptances](#)). Non-domestically domiciled money market issuers must be domiciled in countries defined in the Master Glossary under Yankee Sovereign.
3. Repurchase Agreements and [Tri-Party Repurchase Agreements](#) (repos and tri-party repos) collateralized at 102% by debt obligations of the U.S. Government or its agencies (this does not include mortgage-backed securities). Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by A3/A- or higher rated corporate debt or AAA structured securities or commercial paper with a minimum A1/P1 rating. Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by common stock of companies included in one of the following indices: Nasdaq composite, Russell 3000, or the S&P 500. Individual common stock concentration is limited to 5% per issuer. Repurchase agreements and Tri-Party Repurchase agreements must be [marked-to-market](#) daily. Repurchase agreements and Tri-Party Repurchase agreements must be with counterparties rated at least A1/P1.

Mortgage-backed securities are prohibited. Collateral for Tri-party repurchase agreements must be a minimum of \$1 million in size.

Guidelines for Eligible Repo Counterparties can be found in Attachment A3.

4. [Notes](#), bonds, and debentures issued by the U.S. Government and its agencies, U.S. corporations, Canadian, [Supranational](#), and Yankee Sovereign entities subject to the maturity and credit quality limitations specified in this Policy.
5. Money market funds as defined under SEC Regulation 270.2a-7.
6. Structured securities with a minimum credit rating of AAA. Subject to the maturity constraints specified in this Policy.
7. [Floating rate](#) and [variable rate securities](#), subject to maturity, credit quality, and reset limitations specified in this Policy. The HQL Program can invest in [adjustable rate securities](#) tied to [LIBOR](#), [Fed Funds](#), Treasury Bills, and Commercial Paper Indices.
8. Derivatives, subject to Section IV.

III. CALCULATIONS AND COMPUTATIONS

- A. For securities with periodic principal payments, the [weighted-average days to maturity](#) must be calculated from the [evaluation date](#) to the date of the security's [average life](#).
- B. The HQL Program weighted-average days to maturity must be calculated from the evaluation date to the date of the next coupon reset for floating rate securities.

IV. DERIVATIVES AND LEVERAGE POLICY

All transactions involving [derivatives](#) and [leverage](#) are governed by CalPERS Statement of Investment Policy for Development of Derivatives Strategies. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the HQL Program.

- A. [Financial Futures](#), [Swaps](#), and [Options](#)
 1. [Short selling](#) of securities is prohibited, except in financial futures (as outlined in Section IV. A. 4.);

2. Leverage is prohibited except [futures](#) position where there is an associated cash position (which effectively creates a synthetic bond);
3. The Staff may buy or sell the following fixed income related derivatives: financial futures including [eurodollar futures](#), [total return swaps](#), [index swaps](#), [credit default swaps](#), [interest rate swaps](#), and [over-the-counter](#) options; and
4. Acceptable strategies include bona fide [hedges](#) (to help achieve the target durations) and strategies that result in a more efficient method of implementing the investment objectives of the HQL Program.

B. Restrictions and Prohibitions

1. [Uncovered Call](#) writing is prohibited.
2. [Speculation](#) or [arbitrage](#) between two derivatives is prohibited. If a derivative is more attractively priced than the underlying security, the transaction is considered a substitution.

C. Counterparty Exposure for Options, Swaps and Futures

Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 ([S&P](#)) and at least P1 ([Moody's](#)), or rated on a long-term at least A3 (Moody's) and at least A- (S&P). CalPERS internal research staff shall actively review these brokers.

DOLLAR-DENOMINATED FIXED INCOME SHORT DURATION PROGRAM

February 14, 2011~~December 15, 2008~~

I. PERFORMANCE OBJECTIVE AND BENCHMARK

The performance objective of the Dollar-Denominated Fixed Income [Short Duration Program](#) ("SD Program") is to exceed the return of a [Federal Funds](#) based index while maintaining a high level of diversification and prudent liquidity.

The benchmark for Dollar-Denominated Fixed Income Short Duration Program is specified in the Benchmark Modification and Benchmark Details Policy.

II. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approach

Identifying opportunities across limited duration [bond](#) market sectors and investing where risks are both understood and manageable while maintaining credit quality, [duration](#), [convexity](#), and liquidity as specified in this Policy is the investment approach of the Short Duration Program. Given the mandate for the SD Program to be a medium liquidity, total rate of return program, measured versus a Federal Funds based benchmark, it is expected that AAA rated [Floating Rate Securities](#) will represent a majority of the SD Program holdings.

B. Specific Risk Parameters

CalPERS shall manage the following major categories of fixed income risk:

1. [Benchmark Risk](#) was reviewed by the Consultant who determined that the Federal Funds based index was the appropriate reference point.
2. [Interest Rate Risk](#) must be controlled by limiting the SD Program's duration to not exceed 180 days and by limiting duration by the asset type through the table below. Decisions shall be managed using historical [real return relationships](#) and [economic analysis](#).

Maturity and Duration Constraints

Asset	Floating Rate Maturity Limits	Fixed Rate Maturity Limits
US Treasury & Govt. Sponsored		2 years
Repurchase Agreements		
US Treasury/ Agency Collateral	3 months	
Non US Treasury/Agency Collateral	1 month	
AAA Rated Structured Securities	7 year WAL	2 year WAL
Non-AAA Rated Structured Securities	5 year WAL	18 month WAL
<i>Note: Mortgage-backed securities maximum WAL calculation to be run at 100 PSA</i>		
Money Market Securities		
> = A1/P1		270 days
< A1/P1		90 days
Corporate & Yankee Sovereign (AAA rated)	5 Years	2 years
Corporate & Yankee Sovereign (less than AAA rated)	4 Years	8 months

3. [Yield Curve Risk](#) must be managed in a controlled, disciplined fashion by employing [break-even](#), economic analysis, [partial duration](#), and [principal component analysis](#).
4. [Convexity Risk](#) must be managed using [option-adjusted](#) and [scenario analyses](#).
5. [Sector Risk](#) and [Asset Risk](#) will be controlled using the table below. Based on the economic outlook, [historical factors](#), and break-even analysis, Staff shall estimate the impact on various sectors' and assets' spreads and make allocations accordingly.

Asset and Sector Diversification

Asset / Counterparty	Diversification Limits
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	25%
AAA Rated Structured Securities	
Less than or = 1.5 year WAL	15%
Greater than 1.5 year WAL	10%
Non-AAA Rated Structured Securities	5%
Corporate & Yankee Sovereign (AAA rated)	10%
Corporate & Yankee Sovereign (less than AAA rated)	5%
Money Market Securities	
> = A1/P1 (next business day maturity)	15%
> = A1/P1	10%
< A1/P1 (next business day maturity)	10%
< A1/P1	5%

Sector	Sector Limits
Floating Rate	No Restriction
Fixed Rate (greater than 35 day WAL)	35%
Non-AAA Rated Securities	50%
US Treasury & Govt. Sponsored	No Restriction
2a-7 Money Market Funds	No Restriction
State Street Bank's STIF	No Restriction
Repurchase Agreements	No Restriction
AAA Rated Structured Securities	No Restriction
Credit Card Collateral	75%
Auto Collateral	75%
Student Loan Collateral	75%
Home Equity Loan Collateral	75%
Any Other Individual Structured Collateral Sector	50%
Non-AAA Rated Structured Securities	
Each Sector (e.g., credit card, auto)	20%
Any One Corporate Sector	15%
Total Yankee Sovereign Sector	15%
Total Corporate/Yankee Sovereign	50%
Money Market Securities	
> = A1/P1	No Restriction
< A1/P1 (next business day maturity)	50%
< A1/P1	25%

6. [Credit Risk](#) will be controlled by requiring minimum [ratings](#) by asset type as outlined in the table below. Credit Risk shall be actively managed on a risk/return basis. A downgrading of a security, which causes a violation in the guidelines, shall not require an immediate sale if the [Senior Investment Officer](#) of Global Fixed Income believes that no further risk of credit deterioration exists or the sale diminishes the total return to CalPERS. The CalPERS internal research staff and the external rating agencies shall analyze such situations to ensure that an informed decision is made. The following is the minimum quality for each of the sectors.

Asset / Counterparty	Minimum Credit Rating
US Treasury & Govt. Sponsored	AAA
Repurchase Agreements	A1/P1
Structured Securities	Baa2 or BBB
Money Market Securities	A2/P2
Corporate Securities	Baa1/BBB+
Yankee Sovereign Securities	A3/A-

7. [Structure Risk](#) must be managed using option-adjusted and scenario analysis.
8. [Reinvestment Risk](#) must be managed through [call risk](#) and cash flow analysis.
9. [Liquidity Risk](#) is reduced through the SD Program's mandate as a limited duration program that will provide prudent liquidity.
10. [Currency Risk](#) is reduced by requiring all securities to be denominated in U.S. dollars.

C. Restrictions and Prohibitions

1. Except for U.S. Treasuries and Agencies, investments in a AAA-rated single [issuer](#) with a maturity that exceeds one business day shall not exceed 10% of the SD Program during the holding period for such investment. Exceptions to this restriction are 2a-7 money market funds, State Street Bank's STIF, repurchase agreements and structured securities that have average lives less than or equal to 1.5 years (Section II. B. 5.) For structured securities, each separate trust (pool of assets) is defined as a separate issuer.

2. Investments in any non-AAA rated single issuer with a maturity that exceeds one business day shall not exceed 5% of the SD Program during the holding period for such investment. For structured securities, each separate trust (pool of assets) is defined as a separate issuer.
3. The option-adjusted duration of the SD Program must not exceed 180 days.
4. Non-investment grade securities are prohibited.
5. Tobacco company investments are prohibited.
6. [Privately Placed Investment Grade](#) Corporate Bonds are prohibited.
7. [Adjustable rate securities](#), which are not allowed include, but are not limited to, the following:
 - a. [Inverse floaters](#), leveraged floaters and any securities whose interest rate reset provisions are based on a formula that magnifies changes in interest rates.
 - b. Constant Maturity Treasury (CMT) floaters and securities whose interest rate reset provisions are tied to long-term interest rates so that a change in the slope of the [yield curve](#) could result in the value of the instrument falling below par.
 - c. Dual Index Floaters and securities whose interest reset provisions are tied to more than one index so that a change in the relationship between these indices may result in the value of the instrument falling below par.
 - d. Cost of Funds Index (COFI) floaters, and securities whose interest rate reset provision is tied to an index materially lagging short-term interest rates.

D. Authorized Securities

1. U.S. Treasury and [Government Sponsored Securities](#) (including derivative securities whose deliverable instrument is a U.S. Treasury or government obligation) excluding mortgages and [mortgage-backed securities](#) (MBS).
2. Money market instruments, including obligations of the U.S. Government and its agencies, and domestic money market instruments ([Commercial Paper](#), bank time deposits, [Certificates of](#)

[Deposit](#), and [Banker's Acceptances](#)). Non-domestically domiciled money market issuers must be domiciled in countries defined in the Master Glossary under Yankee Sovereign.

3. Repurchase Agreements and [Tri-Party Repurchase Agreements](#) (repos and tri-party repos) collateralized at 102% by debt obligations of the U.S. Government or its agencies (this does not include mortgage-backed securities). Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by A3/A- or higher rated corporate debt or AAA structured securities or commercial paper with a minimum A1/P1 rating. Repurchase agreements and Tri-Party Repurchase agreements collateralized at 105% by common stock of companies included in one of the following indices: Nasdaq composite, Russell 3000, or the S&P 500. Individual common stock concentration is limited to 5% per issuer. Repurchase agreements and Tri-Party Repurchase agreements must be marked-to-market daily. Repurchase agreements and Tri-Party Repurchase agreements must be with counterparties rated at least A1/P1. Mortgage-backed securities are prohibited. Collateral for Tri-party repurchase agreements must be a minimum of \$1 million in size.

Guidelines for Eligible Repo Counterparties can be found in Attachment A3.

4. [Notes](#), [bonds](#), and debentures issued by the U.S. Government and its agencies, U.S. corporations, Canadian, [supranational](#), and Yankee Sovereign entities subject to the maturity and credit quality limitations specified in this Policy.
5. Money market funds as defined under SEC Regulation 270.2a-7.
6. Structured securities with a minimum credit rating of Baa2/BBB. Subject to the maturity constraints detailed in this Policy.
7. Floating rate and [variable rate securities](#), subject to maturity, credit quality, and reset limitations specified in this Policy. The SD Program can invest in adjustable rate securities tied to [LIBOR](#), [Fed Funds](#), Treasury Bills, and Commercial Paper Indices.
8. [Participation shares in CalPERS construction loan program](#) with BRIDGE Housing Corporation.
9. CalPERS Asset-Based Loan (ABL) program investments.
10. Derivatives, subject to the requirements of Section IV.

III. CALCULATIONS AND COMPUTATIONS

- A. For securities with periodic principal payments, the [weighted-average days to maturity](#) must be calculated from the [evaluation date](#) to the date of the security's [average life](#).
- B. The SD Program weighted-average days to maturity must be calculated from the evaluation date to the date of the next coupon reset for floating rate securities.

IV. DERIVATIVES AND LEVERAGE POLICY

All transactions involving [derivatives](#) and [leverage](#) are governed by CalPERS Statement of Investment Policy for Development of Derivatives Strategies. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the SD Program.

A. [Financial Futures](#), [Swaps](#), and [Options](#)

- 1. [Short selling](#) of securities is prohibited, except in financial futures (as outlined in Section IV. A. 4);
- 2. Leverage is prohibited except [futures](#) position where there is an associated cash position (which effectively creates a synthetic bond);
- 3. Staff may buy or sell the following fixed income related derivatives: financial futures including [eurodollar futures](#), [total return swaps](#), [index swaps](#), [credit default swaps](#), [interest rate swaps](#), and [over-the-counter](#) options; and
- 4. Acceptable strategies include bona fide [hedges](#) (to help achieve the target durations) and strategies that result in a more efficient method of implementing the investment objectives of the SD Program.

B. Restrictions and Prohibitions

- 1. [Uncovered Call](#) writing is prohibited.
- 2. [Speculation](#) or [arbitrage](#) between two derivatives is prohibited. If a derivative is more attractively priced than the underlying security, the transaction is considered a substitution.

C. Counterparty Exposure for Options, Swaps and Futures

Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1

([S&P](#)) and at least P1 ([Moody's](#)), or rated on a long-term basis at least A3 (Moody's) and at least A- (S&P). CalPERS internal research staff shall actively review these brokers.

**DOLLAR-DENOMINATED FIXED INCOME
LIMITED LIQUIDITY ENHANCED RETURN PROGRAM**

February 14, 2011

I. PERFORMANCE OBJECTIVE AND BENCHMARK

The performance objective of the Dollar-Denominated Fixed Income Limited Liquidity Enhanced Return Program ("LLER Program") is to exceed the return of a one-month LIBOR based index while maintaining a low level of diversification. The low level of diversification within the LLER Program portfolio is balanced by the expectation that the LLER Program will represent a small portion of the overall assets for the asset class utilizing the LLER Program.

The benchmark for Dollar-Denominated Fixed Income Short Duration Program is specified in the Benchmark Modification and Benchmark Details Policy.

II. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approach

Identifying opportunities across limited duration bond market sectors and investing where risks are both understood and manageable while maintaining credit quality, duration, convexity, and liquidity as specified in this Policy is the investment approach of the LLER Program. Given the mandate for the LLER Program to be a low liquidity, total rate of return program, measured versus a LIBOR based benchmark, it is expected that investment grade rated, Floating Rate Securities, will represent a majority of the LLER Program holdings.

Given the higher risk, lower liquidity nature of the LLER Program, the portfolio will likely have high security concentrations. Larger concentration in fewer securities is prudent as long as the LLER Program represents a small portion of the overall assets for the asset class utilizing the LLER Program.

B. Specific Risk Parameters

CalPERS shall manage the following major categories of fixed income risk:

1. Benchmark Risk was reviewed by the Consultant who determined that the one-month LIBOR based index was the appropriate reference point.

2. Interest Rate Risk must be controlled by limiting the LLER Program's duration to not exceed 270 days and by limiting duration by the asset type through the table below. Decisions shall be managed using historical real return relationships and economic analysis.

Maturity and Duration Constraints

<u>Asset</u>	<u>Floating Rate Maturity Limits</u>	<u>Fixed Rate Maturity Limits</u>
<u>AA & AAA Rated Structured Securities</u>	<u>10 year WAL</u>	<u>3 year WAL</u>
<u>Less than AA Rated Structured Securities</u>	<u>7 year WAL</u>	<u>18 month WAL</u>
<u>Note: Mortgage-backed securities maximum WAL calculation to be run at 100 PSA</u>		
<u>Corporate & Yankee Sovereign (AA & AAA rated)</u>	<u>10 Years</u>	<u>2 years</u>
<u>Corporate & Yankee Sovereign (less than AA rated)</u>	<u>5 Years</u>	<u>15 months</u>

3. Yield Curve Risk must be managed in a controlled, disciplined fashion by employing break-even, economic analysis, partial duration, and principal component analysis.
4. Convexity Risk must be managed using option-adjusted and scenario analyses.
5. Sector Risk and Asset Risk will be controlled using the table below. Based on the economic outlook, historical factors, and break-even analysis, Staff shall estimate the impact on various sectors' and assets' spreads and make allocations accordingly.

Given the higher risk, lower liquidity nature of the LLER Program, the portfolio will likely have large security concentrations. Larger concentration in fewer securities is prudent as long as the LLER Program represents a small portion of the overall assets for the asset class utilizing the LLER Program. Accordingly, during the portfolio ramp-up period, calculation of asset and sector diversification limits will be based on the assumption of a \$2 billion portfolio size. The larger ramp-up period portfolio size relative to the HQL and SD Programs is needed due to the larger security

concentration nature of the security purchases in the LLER Program.

Asset and Sector Diversification

<u>Asset / Counterparty</u>	<u>Diversification Limits</u>
<u>AA & AAA Rated Structured Securities</u>	<u>15%</u>
<u>Less than AA Rated Structured Securities</u>	<u>5%</u>
<u>Corporate & Yankee Sovereign</u>	<u>2%</u>

<u>Sector</u>	<u>Sector Limits</u>
<u>Floating Rate</u>	<u>No Restriction</u>
<u>Fixed Rate</u>	<u>25%</u>
<u>AA & AAA Rated Securities</u>	<u>No Restriction</u>
<u>Less than AA Rated Securities</u>	<u>25%</u>

6. Credit Risk will be controlled by requiring minimum ratings by asset type as outlined in the table below. Credit Risk shall be actively managed on a risk/return basis. A downgrading of a security, which causes a violation in the guidelines, shall not require an immediate sale if the Senior Investment Officer of Global Fixed Income believes that no further risk of credit deterioration exists or the sale diminishes the total return to CalPERS. The CalPERS internal research staff and the external rating agencies shall analyze such situations to ensure that an informed decision is made. The following is the minimum quality for each of the sectors.

<u>Asset / Counterparty</u>	<u>Minimum Credit Rating</u>
<u>All Securities (at time of purchase)</u>	<u>Baa3/BBB-/BBB-</u>

7. Structure Risk must be managed using option-adjusted and scenario analysis.
8. Reinvestment Risk must be managed through call risk and cash flow analysis.
9. Liquidity Risk is a low priority given the LLER Program's mandate as a limited duration program that will provide little to no liquidity.
10. Currency Risk is reduced by requiring all securities to be denominated in U.S. dollars.

C. Restrictions and Prohibitions

1. Investments in a AA & AAA-rated single issuer shall not exceed (at the time of purchase) 15%. For structured securities, each separate trust (pool of assets) is defined as a separate issuer.
2. Investments in less than AA rated single issuer shall not exceed (at the time of purchase) 5%. For structured securities, each separate trust (pool of assets) is defined as a separate issuer.
3. The option-adjusted duration of the LLER Program must not exceed 270 days.
4. Non-investment grade securities (at the time of purchase) are prohibited.
5. Tobacco company investments are prohibited.

D. Authorized Securities

1. Notes, bonds, and debentures issued by the U.S. Government and its agencies, U.S. corporations, Canadian, supranational, and Yankee Sovereign entities subject to the maturity and credit quality limitations specified in this Policy.
2. Structured securities subject to the maturity and credit quality constraints detailed in this Policy.
3. Floating rate and variable rate securities, subject to maturity, credit quality, and reset limitations specified in this Policy.
4. Derivatives, subject to the requirements of Section IV.

III. CALCULATIONS AND COMPUTATIONS

- A. For securities with periodic principal payments, the weighted-average days to maturity must be calculated from the evaluation date to the date of the security's average life.
- B. The LLER Program weighted-average days to maturity must be calculated from the evaluation date to the date of the next coupon reset for floating rate securities.

IV. DERIVATIVES AND LEVERAGE POLICY

All transactions involving derivatives and leverage are governed by CalPERS Statement of Investment Policy for Development of Derivatives Strategies. In addition to the restrictions defined in the Derivatives Policy, the following conditions apply specifically to the LLER Program.

A. Financial Futures, Swaps, and Options

1. Short selling of securities is prohibited, except in financial futures (as outlined in Section IV. A. 4);
2. Leverage is prohibited except futures position where there is an associated cash position (which effectively creates a synthetic bond);
3. Staff may buy or sell the following fixed income related derivatives: financial futures including eurodollar futures, total return swaps, index swaps, credit default swaps, interest rate swaps, and over-the-counter options; and
4. Acceptable strategies include bona fide hedges (to help achieve the target durations) and strategies that result in a more efficient method of implementing the investment objectives of the LLER Program.

B. Restrictions and Prohibitions

1. Uncovered Call writing is prohibited.
2. Speculation or arbitrage between two derivatives is prohibited. If a derivative is more attractively priced than the underlying security, the transaction is considered a substitution.

C. Counterparty Exposure for Options, Swaps and Futures

Transactions shall be executed with only domestic or non-U.S. brokers registered in the U.S. or the U.K. with a short-term debt rating of at least A1 (S&P) and at least P1 (Moody's), or rated on a long-term basis at least A3 (Moody's) and at least A- (S&P). CalPERS internal research staff shall actively review these brokers.

ELIGIBLE REPO COUNTERPARTIES
Effective September 14, 2006

Repo counterparties may include the following:

1. Any bank or broker/dealer explicitly rated A1/P1/F1 by at least two of the three rating agencies. In the case of split [ratings](#), measure against the lowest of the three ratings.
2. Any bank branch whose parent is rated A1/P1/F1 (by at least two out of the three agencies).
3. Any subsidiary of a parent entity rated A1/P1/F1 carrying a guarantee of the parent.
4. If an entity is not explicitly rated, is not a bank branch, and does not carry a parental guaranty, then the entity must be a Primary Government Securities Dealer (as listed on the Federal Reserve Bank of New York's Primary Dealer List located at: http://www.ny.frb.org/markets/pridealers_current.html).

and

The parent entity must be rated A1/P1/F1 by two of the three rating agencies.

In all cases, ratings must be issued by two out of the three agencies; in the case of split ratings, measure against the lowest of the three ratings.

SPECIFIC REPO COUNTERPARTIES

Eligible Counterparties include the names listed below. These may be amended at any time provided they comply with above guidelines.

	Explicit Rating	Primary Dealer	Parent Rating
Banc of America Securities, LLC.	A1+/P1	Yes	A1+/P-1
Barclays Capital Inc.	No	Yes	A1+/P1
BNP Paribas Securities Corp.	No	Yes	A1+/P-1
Citigroup Global Markets Inc.	A1+/P1	Yes	A1+/P-1
Credit Suisse Securities (USA) LLC	No	Yes	A1+/P1
Deutsche Bank Securities Inc.	P1	Yes	A1+/P-1
Dresdner Kleinwort Wasserstein Securities LLC	No	Yes	A-1/P-1
Goldman, Sachs & Company	A1+/P-1	Yes	A-1+/P1
HSBC Securities (USA) Inc.	No	Yes	A-1+/P1
JP Morgan Securities Inc.	No	Yes	A-1+/P1
Merrill Lynch Government Securities Inc.	No	Yes	A1/P1
Morgan Stanley & Co. Incorporated	No	Yes	A1+*/P1
RBS/Greenwich Capital Markets, Inc.	No	Yes	A1+/P-1
UBS Securities LLC	A1+	Yes	A1+/P-1

As of December 15, 2008

*Morgan Stanley S&P A-1+ rating is on negative watch

INTERNALLY MANAGED DOLLAR-DENOMINATED SHORT-TERM PROGRAM

February 14, 2011~~December 15, 2008~~

I. PERFORMANCE OBJECTIVE AND BENCHMARK

The performance objective for the Dollar-Denominated Short-Term Program (“ST Program”) is to exceed the benchmark.

The benchmark for the Internally Managed Dollar-Denominated Short-Term Program is specified in the Benchmark Modification and Benchmark Details Policy.

II. INVESTMENT APPROACHES AND PARAMETERS

A. Investment Approach

The goals of the ST Program are to provide liquidity to CalPERS and to maximize investment returns at a prudent level of risk. The investment approach is to identify opportunities in the short end of the [yield curve](#) and invest where risks are understood and manageable, while maintaining liquidity, credit quality, [weighted-average days to maturity](#), and diversification as specified in this Policy.

To ensure liquidity, all ST Program investment transactions shall be made in conjunction with CalPERS projected cash flow needs.

B. Specific Risk Parameters

CalPERS shall manage the following major categories of short-term risk:

1. [Benchmark Risk](#) was reviewed by the Consultant who determined that the SSB STIF is the appropriate reference point for the ST Program.
2. [Liquidity Risk](#) must be managed within the context of CalPERS projected cash flow needs.
3. [Interest Rate Risk](#) must be managed using [economic analysis](#), [Federal Open Market Committee](#) analysis, and projected cash flow requirements of CalPERS. All securities purchased shall have a maximum final stated maturity of 15 months **except** for the following securities:

- a. [Callable securities](#) having a high probability of being “called” as projected using [option-adjusted](#) and [scenario analysis](#). Callable [securities](#) shall have a maximum anticipated time to call of 12 months.
 - b. Fixed rate [asset-backed securities](#) shall have a maximum projected [average life](#) of 15 months and a final stated maturity that does not exceed 5 years.
 - c. Floating rate asset-backed securities shall have a maximum projected average life of 3 years and a final stated maturity that does not exceed 5 years.
 - d. [Corporate](#) and U.S. Government [Agency floating rate securities](#) shall have a final stated maturity not exceeding 3 years.
 - e. Securities with short-term [ratings](#) that are [split-rated](#) shall have a maximum final stated maturity of 120 days (including floating rate securities).
 - f. Securities rated A2/P2 shall have a maximum final stated maturity of 75 days (including floating rate securities).
 - g. [Deliveries versus payment repurchase agreements](#)—(DVP Repo) [and tri-party repurchase agreements](#) are limited to a maximum of 14 days from the trade date to the date of repurchase.
 - h. Investments in short-term obligations of issuers domiciled outside the United States shall have a maximum final stated maturity of 120 days.
4. [Yield Curve Risk](#) must be managed in a controlled, disciplined fashion by employing [break-even](#) and economic analysis.
 5. [Credit Risk](#) must be managed with a goal of zero [defaults](#). A downgrading of a security, which causes a violation of the Policy, shall not require an immediate sale if the [Senior Investment Officer](#) of Global Fixed Income believes that no further risk of credit deterioration exists, or that the sale diminishes the total rate of return to CalPERS. CalPERS internal research staff and the external rating agencies shall be utilized in analyzing such situations to ensure that an informed decision is made. The following are minimum credit quality standards for each of the sectors:

- a. U.S. Treasury & U.S. Government Agency securities shall have a credit quality rating of AAA.
 - b. Asset-backed securities must be in the highest rating category for short-term debt obligations (A1+/P1 or A1/P1) or rated on a long-term debt obligation basis by [Moody's](#) (Aaa) and [S&P](#) (AAA).
 - c. Broker/dealer securities must be in the highest rating category for short-term debt obligations (A1+/P1 or A1/P1).
 - d. Domestic [money market securities](#) must be in one of the two highest rating categories for short-term debt obligations (A2/P2 or higher). If the security is only rated by one of the credit agencies (S&P or Moody's) then the security must be in the highest rating category for short-term debt obligations (A1+, A1 or P1). All corporate issuers with a short-term rating below A1/P1 shall be monitored by the CalPERS internal research staff annually or as events warrant.
 - e. Domestic corporate securities ([bonds](#), [notes](#), [medium term notes](#), and floating rate securities) without a short-term debt obligation rating must have a minimum long-term debt obligation rating by Moody's of A2 and by S&P of A.
 - f. Investments in U.S. Dollar bonds and money market securities issued in the United States by foreign borrowers ([Yankee](#)) or U.S. Dollar bonds and money market securities issued outside the United States by domestic or foreign borrowers ([Eurodollar](#)) must be debt obligations of companies located in a country with a long-term [sovereign](#) rating by Moody's of Aa3 (or higher) and by S&P AA- (or higher) and have a short-term rating of A1/P1 (or higher).
- 6. [Structure Risk](#) must be managed using option adjusted and scenario analysis.
 - 7. [Reinvestment Risk](#) must be managed through [call risk](#) and cash flow analysis.

C. Authorized Securities

- 1. U.S. Treasury and U.S. Government Agencies including U.S. Treasury strips;

2. Publicly traded domestic corporate bonds, notes, and medium term notes;
3. Asset-backed securities collateralized by credit cards, automobile loans, or leases and agricultural equipment;
4. Publicly and [privately traded domestic money market securities](#);
5. Floating rate securities tied to [LIBOR](#), [Fed Funds](#), Treasury bills and [commercial paper](#) indices;
6. [State Street Bank Short Term Investment Fund](#) (STIF);
7. Delivery Vs. Payment and Repurchase Agreements ~~Repos~~ and Tri-party repurchase agreements;
8. Broker/Dealer Securities;
9. U.S. Dollar bonds and money market securities issued in the United States by foreign borrowers (Yankee); and
10. U.S. Dollar bonds and money market securities issued outside the United States by domestic or foreign borrowers (Eurodollar).

D. Restrictions and Prohibitions

1. Investments in a single [issuer](#) (including parent, subsidiary and guaranteed debt) whose securities are rated A1+/P1 or A1/P1, shall not exceed 10% of the ST Program over the holding period for such investments. However, holdings in such issuers with maturities in excess of 7 days shall not exceed 5% of the ST Program. For asset-backed securities, each separate trust (pool of assets) is defined as a separate issuer.
2. Investments in a single issuer (including parent, subsidiary and guaranteed debt) whose securities are [split-rated](#) (A2/P1 or A1/P2), shall not exceed 6% of the ST Program over the holding period for such investments. However, holdings in such issuers with maturities exceeding 7 days shall not exceed 3% of the ST Program.
3. Investments in a single issuer (including parent, subsidiary and guaranteed debt) whose securities are rated A2/P2, shall not exceed 4% of the ST Program over the holding period for such investments. However, holdings in such issuers with maturities exceeding 7 days shall not exceed 2% of the ST Program.

4. Aggregate investments in securities split-rated or A2/P2 shall not exceed 30% of the ST Program over the holding period for such investments.
5. Aggregate investments in floating rate securities shall not exceed 50% of the ST Program over the holding period for such investments.
6. Aggregate investments in fixed rate asset-backed securities shall not exceed 25% of the ST Program over the holding period for such investments.
7. Aggregate investments in DVP Repos with maturities exceeding the next business day shall not exceed 20% of the ST Program.
- ~~8. Tri-party repurchase agreements are prohibited.~~
8. Non-dollar denominated securities are prohibited.
9. [Collateralized mortgage obligations](#) and [mortgage-backed securities](#) are prohibited.
10. [Financial futures](#) and [options](#) are prohibited.

E. Counterparty Exposure for DVP Repos

1. The lesser of \$200 million or 25% of the total ST Program can be maintained with any one counterparty for DVP Repos.
2. The counterparty must be in the highest rating category for short-term debt obligations (A1+/P1 or A1/P1). Transactions shall be executed with only domestic brokers. The CalPERS internal research staff shall actively review these brokers.
3. Collateral received on a [repurchase agreement](#) must consist of U.S. Treasury or U.S. Government Agency securities with a maximum final stated maturity of 5 years. All collateral must be marked-to-market on a daily basis and maintained at 102% of the amount of funds loaned plus accrued interest.

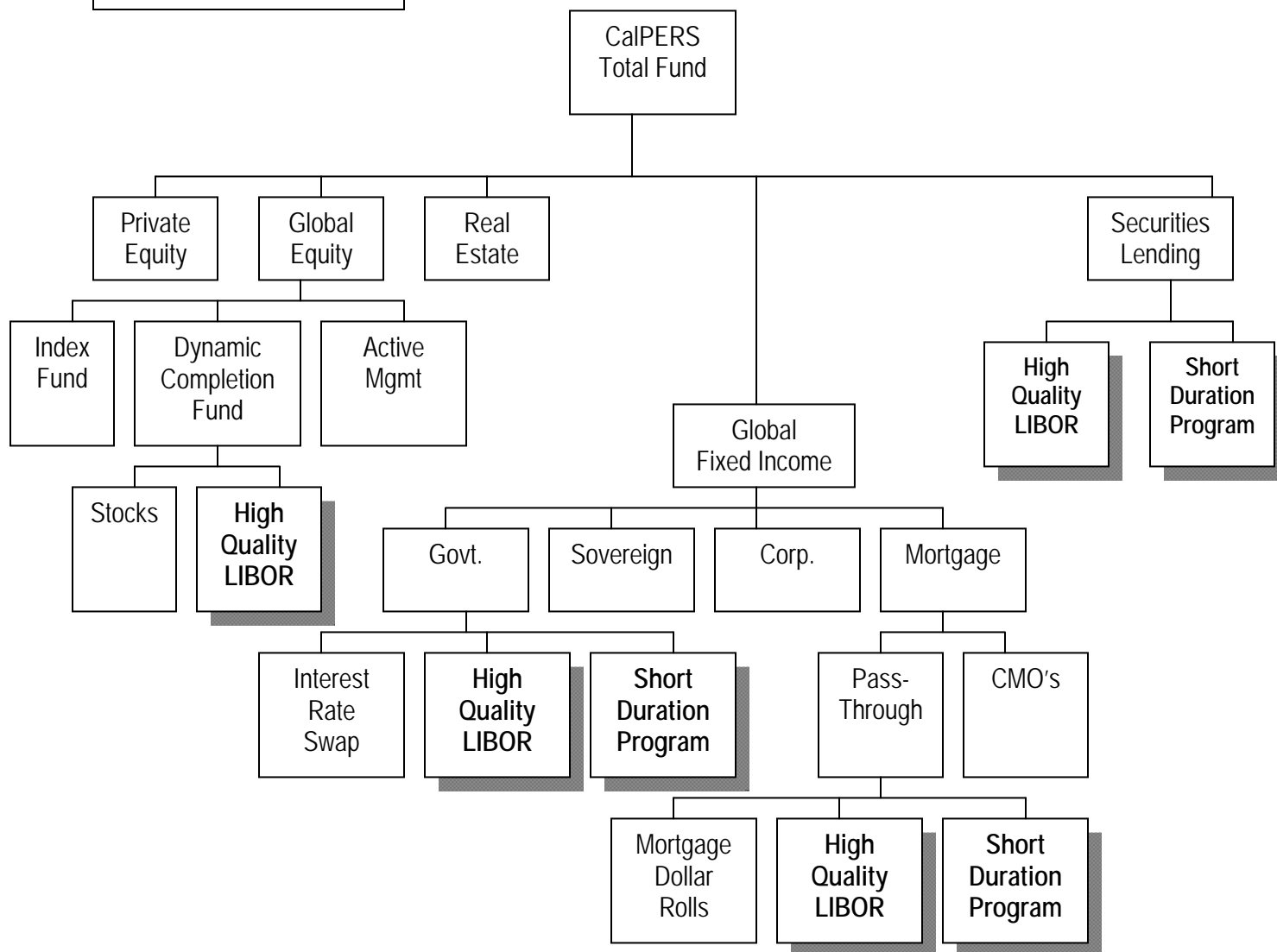
III. CALCULATIONS AND COMPUTATIONS

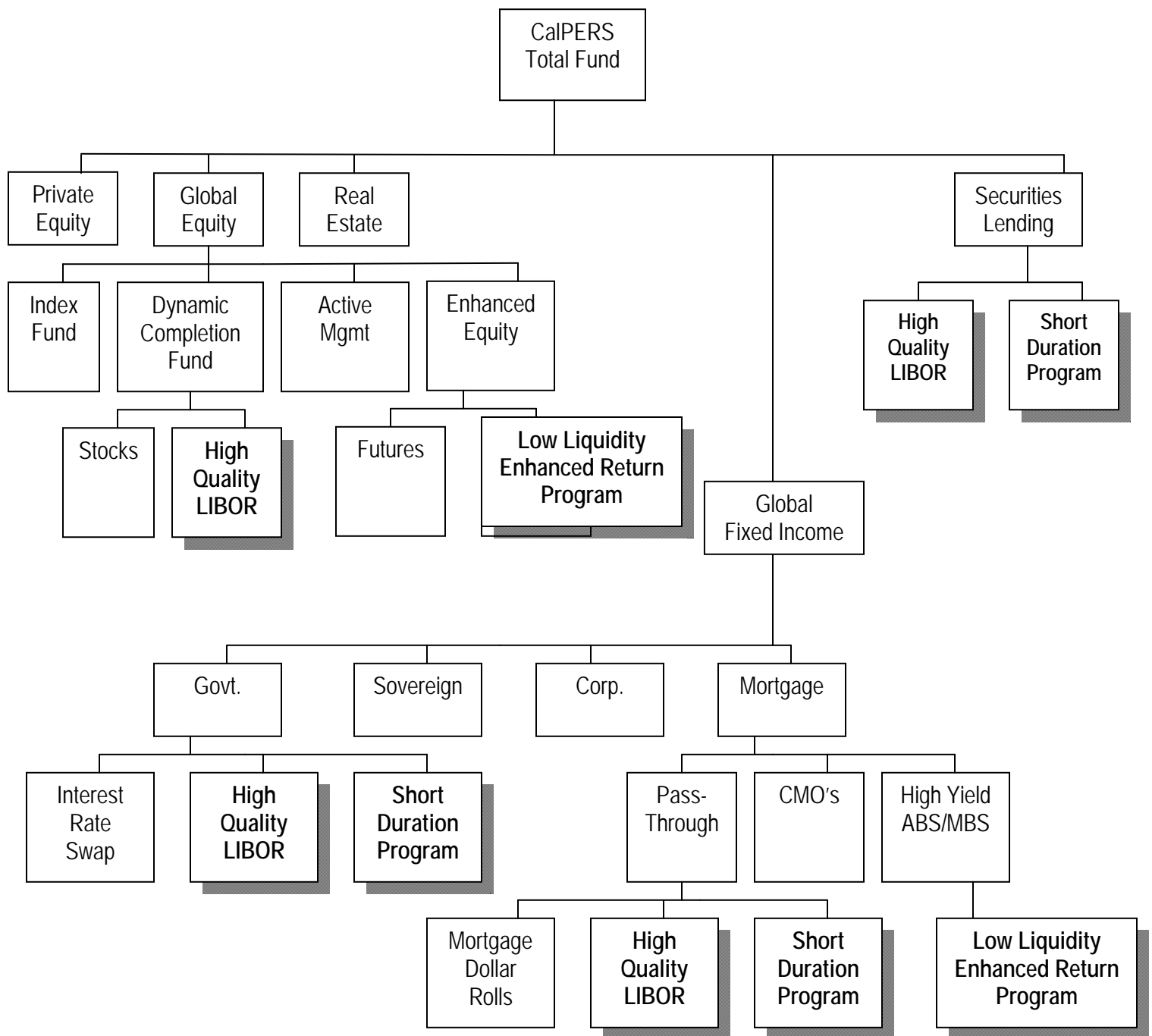
- A. Calculations and computations shall be on a [mark-to-market](#) or [amortized cost method](#) depending on market convention. Securities for which there are market quotations readily available shall be accounted for utilizing the mark-to-market method. When no market quote is available, the amortized cost method shall be used for determining the securities value.

- B. For securities with periodic principal payments, the weighted-average days to maturity calculation shall be calculated from the [evaluation date](#) to the date of the security's average life.
- C. For floating rate securities, the program weighted-average days to maturity calculation shall be calculated from the evaluation date to the date of the next coupon reset.
- D. References to short-term [credit ratings](#) shall be presented with S&P rating first followed by Moody's (i.e., S&P (A1) and Moody's (P1) shall be presented as A1/P1).

~~SHORT DURATION PROGRAMS COMPARISON~~

This page will be removed and replaced with the following page - Attachment C



SHORT DURATION PROGRAMS COMPARISON

Adjustable Rate Security

Adjustable Rate Security is a broad description of a fixed income instrument whose rate is determined based on a pre-agreement between two parties. These instruments include floating rate, inverse floaters, leverage floaters and dual index floater securities.

Amortized Cost Method

Valuations initially value debt securities at acquisition cost. The interest earned on each debt security (plus any discount received or less any premium paid upon purchase) is then accrued ratably during the remaining maturity of the security.

Arbitrage

The simultaneous purchase and sale of two instruments for the purpose of capturing a pricing disparity between them. The instruments do not need correlated price movements.

Asset Risk

Asset Risk is the risk of holding assets proportionally different from the Index.

Asset-Backed Security

A security collateralized by assets such as automobile loans, agricultural equipment loans, and credit card loans. The loans are securitized by the issuer and usually placed with a trustee.

Authority or Agency

A state or local unit of government created to perform a single activity or a limited group of functions and authorized by the state legislature to issue bonded debt.

Average Life

The average length of time expected to take to retire a debt obligation through amortizing payments, through serial maturity, or sinking funds.

Banker's Acceptance

A draft drawn on a bank ordering payment of a particular sum to a specified party at a specified future date. Under a prearranged agreement, these drafts are "accepted" by banks, indicating a willingness to make such payments at the stated time.

Benchmark Risk

Benchmark Risk addresses whether the index chosen is the appropriate reference point for the program in question.

Bond

A unit of debt, \$1,000 of principal or par amount. For 200 years municipal bonds were sold in \$1,000 denominations. Since the mid-1970s the minimum bond denomination has been \$5,000; nevertheless, "A Bond" is bought, sold, referred to, and priced as if it were \$1,000.

Break-Even Analysis

Uses results from the scenario analysis. Since all projections should be viewed as risky, evaluating the sensitivity of the projected return to adverse market movements is critical. The break-even analysis calculates the movement required to reduce the sector or portfolio returns to a specified level at some horizon. This analysis creates a form of risk/return ratio. The higher the break-even value, the more the cushion against an adverse movement in rates.

Call Risk Analysis

Examines the portfolio's callable securities and estimates the amount of principal returned for a given drop in interest rates.

Callable Securities

Investments that permit the issuer to redeem the security prior to final stated maturity on, or after, specified dates at specified prices.

Certificate of Deposit

A debt instrument issued by a bank that pays interest on either a fixed or floating rate, periodically or at maturity and principal when it reaches final stated maturity.

Collateralized Bond Obligation (CBO)

A structured debt security backed by a portfolio consisting of secured or unsecured bonds issued by a variety of corporate and structured finance issuers.

Collateralized Loan Obligation (CLO)

A structured debt security backed by a portfolio consisting of secured or unsecured loans made to a variety of corporate commercial and industrial loan customers of one or more lending banks.

Collateralized Mortgage Obligation (CMO)

A mortgage-backed security that pools together mortgages and separates the cash flows into short, medium, and long classes (often called tranches), allowing a wider range of risk and return characteristics than in the more homogeneous pass-through market.

Commercial Paper

An unsecured promissory note issued in the open market to raise short-term funds representing the obligation of the issuing entity.

Convexity

The price change from a move in interest rate that cannot be explained by duration only. Positive convexity (when price rises more than expected and falls less) comes at a cost (lower yield). Negative convexity (price rises less than expected and falls more) usually comes with higher yield.

Convexity Risk

Convexity Risk is the downside risk of an equal move up or down in interest rates, causing greater price loss than price gain.

Corporate

Securities issued in the U.S. market by U.S. corporations or foreign corporations (Yankee bonds).

Corporate Sector

As defined by CalPERS' corporate investment managers in BlackRock Solutions, Aladdin product. Examples of sectors include banking, independent finance, diversified telecom, etc.

Credit Default Swap

A credit derivative transaction in which two parties enter into an agreement, whereby one party pays the other a fixed periodic coupon for the specified life of the agreement. The other party makes no payments unless a credit event, relating to a predetermined reference asset, occurs. If such an event occurs, the party will then make a payment to the first party, and the swap will terminate. The size of the payment is usually linked to the decline in the reference asset's market value following the determination of the occurrence of a credit event.

Credit Rating

A current opinion of an obligor's overall financial capacity (its creditworthiness) to pay its financial obligations. This opinion focuses on the obligor's capacity and willingness to meet its financial commitments as they come due. In the case of split ratings, the higher rating of either Moody's, Standard & Poor's, or Fitch Investor Services shall apply.

Credit Risk

Credit Risk is the uncertainty surrounding the borrower's ability to repay its obligations.

Currency Risk

The risk of hedging currency differently than the index.

Custodian

A bank or other financial institution that provides custody of stock certificates and other assets of an institutional investor.

Default

Failure to pay in a timely manner principal and/or interest when due, or a Technical

Default, the occurrence of an event as stipulated in the Indenture of Trust resulting in an abrogation of that agreement. A Technical Default can be a warning sign that a default on debt service is coming, but in reality actual debt service interruption does not always occur if the problems are resolved in time. A Technical Default will almost always drive down the price of a bond in secondary market trading.

Delivery Versus Payment Repurchase Agreement

A short-term, often overnight, sale of securities with an agreement to repurchase the securities at a slightly higher price. In a Delivery Versus Payment Repurchase Agreement, the securities used as collateral are delivered to the custody bank of the investor.

Derivative

An instrument whose value is based on the performance of an underlying financial asset, index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, swaps, and options on futures.

Duration

A measure of price sensitivity to interest rate changes. Duration is the anticipated percentage move in price given a 100 basis point (1 percent) move in interest rates.

Economic Analysis

Examines reference points for indications on what to look for and what events are considered significant in the economy to understand relationships among complex and often seemingly unrelated events. This analysis is used in making decisions concerning duration and sector weightings.

Eurodollar Futures

A standardized agreement traded on the Chicago Mercantile Exchange, to buy or sell Eurodollars at a specified price at a date in the future.

Eurodollars

Certificates of deposit in U.S. dollars in a bank that is typically located outside the U.S., usually a bank in Europe.

Evaluation Date

The targeted date upon which analysis of the portfolio is being performed.

External Manager

An outside money management firm retained under contract by CalPERS.

Fed Funds

Immediately available funds borrowed by banks from certain other financial institutions and government agencies that are exempt from reserve requirements.

Federal Open Market Committee

The Federal Reserve committee that has authority over monetary policy and consists of the seven members of the Board of Governors, as well as five of the 12 regional bank presidents. The president of the New York regional bank is always a member of the committee.

Financial Futures

A contract to trade a financial investment, like a Treasury bond, at a specific price and future date. As interest rates rise or fall, the value of such contract falls or rises respectively.

Floating Rate Notes

Securities that have a coupon or interest rate adjusted whenever a predefined change in interest rate occurs. Typically, floating rate notes coupons are based on a short-term rate index.

Floating Rate Security

A bond whose coupon rate is reset periodically (i.e., daily, weekly, monthly, or quarterly). The coupon rate is tied to one of a variety of indices.

Futures

Exchange-traded contracts to buy or sell a standard quantity of a given instrument, at an agreed price, and date. A future differs from an option in that both parties are obliged to abide by the transaction. Futures are traded on a range of underlying instruments including commodities, bonds, currencies, and stock indices.

General Pension Consultant

An individual or organization that provides specialized professional assistance to the Investment Committee in determining the pension fund's asset allocation model or optimal combination of investments in order to maximize risk-adjusted investment returns in a manner consistent with the State's long-term pension liabilities.

Government Sponsored Securities

Issuer that benefits from sponsorship with or underlying guarantee from a single or multiple sovereign or regional government entity.

Hedge (Hedging)

A strategy used to offset investment risk. A perfect hedge is one eliminating the possibility of future gain or loss.

High Quality LIBOR

A limited-duration, highly liquid, LIBOR-based fund managed by CalPERS staff.

Historical Factors

A review of past relationships and the environment associated with them to assess the relative investment potential of the current market conditions and relationships.

Index Swap

An agreement between two parties to exchange cashflows where the floating side would depend on the return of an index.

Interest Rate Risk

Interest Risk Rate is the price volatility produced by changes in the overall level of interest rates as measured by an option-adjusted duration.

Interest Rate Swaps

Private agreements between two parties to exchange cash flows in the future, according to a prearranged formula.

Inverse Floaters

A derivative instrument with a coupon rate, which cannot go below zero, that moves inversely with an index rate like London Interbank Offer Rate or 11th District Cost of Funds Index, usually with a leverage factor. The higher the leverage factor, the greater the price sensitivity.

Investment Grade

A minimum credit rating of Baa3 by Moody's Investor Service or BBB- for Standard & Poor's Corporation, and BBB- by Fitch. Investment grade ratings apply to issuers whose financial risk is relatively low and the probability of future payment relatively high.

Issuer

A state or local unit of government that borrows money through the sale of bonds and/or notes.

Leverage

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

LIBOR

An acronym for London Interbank Offer Rate. These rates are based on rates quoted by 16 (for U.S. dollars) British Bankers' Association designated banks as being in their view, the offered rate at which deposits are being quoted to prime banks in the London Interbank Market at 11:00 a.m. London time. Of the 16 contributors, the four highest and four lowest rates are eliminated. An average of the remaining eight is taken.

Liquidity Risk

Liquidity Risk is the ease with which an issue or specified amount can be sold at or near prevailing market prices.

Mark-to-Market

A method of determining the value of securities by applying current trading prices of similar or identical securities to the securities being valued.

Medium Term Notes

A debt security, like any other senior or subordinated debt, with a maturity of two to 10 years offered through one or more dealers. Medium-term notes are fixed coupons and maturities that can be targeted to meet investor requirements. They are issued in the capital markets either publicly under a Securities Exchange Commission 415 shelf registration or privately without such registration.

Money Market Fund

Fund that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit, and other highly liquid and safe securities, and pays money market rates of interest.

Money Market Security

A short-term, highly-liquid, and relatively low-risk debt instrument (i.e., commercial paper, certificates of deposit, bankers acceptances, U.S. Government Agency discount notes, bank notes, and Treasury Bills and Notes).

Moody's Investors Service (Moody's)

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 9-symbol system. The ranges extend from the highest investment quality, which is Aaa, to the lowest credit rating, which is C. Securities rated Baa3 or greater are considered investment grade. Securities rated Ba1 or below are considered to be speculative.

Mortgage-Backed Security (MBS)

A general term used to describe securities backed by mortgages. MBSs are broken down into four types of securities: mortgage pass-through, mortgage-backed bond, collateralized mortgage obligation (CMO), and stripped mortgage-backed bonds. Mortgage pass-throughs are pooled loans, typically issued by the Government National Mortgage Association, Federal National Mortgage Association, and Federal Home Loan Mortgage Corporation. Mortgage-backed bonds have mortgage loans as collateral, but the term and interest payments are fixed. CMOs are defined above. Stripped mortgage-backed securities have the principal and interest distribution altered from a pro rata distribution to an unequal distribution.

Notes

Intermediate-term, interest-bearing instruments issued by corporations, municipalities, or the federal government with maturities commonly ranging from five to 12 years.

Option

Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.

Option (on a Fixed Income Security)

The right or privilege to either buy (call option) or sell (put option) a designated amount of a particular fixed income security or class of securities during a time period ending on the expiration date of the option.

Option-Adjusted Analysis

A method that strips out embedded options in securities such as callable bonds and mortgage-backed securities, enabling comparisons with other security types within a consistent framework.

Over-the-Counter (OTC)

The market for securities and traded products that are not listed on the major exchanges. OTC options are options with negotiated premium, strike price, and expiration date.

Partial Duration Analysis

A method that measures the price sensitivity of a security or a portfolio to changes in different parts of the yield curve.

Participation Shares in CalPERS Construction Loan Program

LIBOR or prime-based floating rate construction loans targeted for low- to moderate-income housing located in California. The projects are managed by BRIDGE Housing Corporation and underwritten by leading financial institutions. CalPERS then purchases participation shares in the underwritten construction loans.

Payment versus Delivery Repurchase Agreement

A short-term, often overnight, sale of securities with an agreement to repurchase the securities at a slightly higher price. In a Delivery Versus Payment Repurchase Agreement, the securities used as collateral are delivered to the custody bank of the investor.

Preferred Stock

Stock shares that represent a portion of ownership in a company, with the shares normally carrying fixed dividends. Sometimes the shares have voting rights, but not generally.

Prepayment Speed Assumption (PSA)

The PSA, also referred to as Prepayment Standard Assumption, is a percentage expression of the relationship between the actual and expected CPR based on the PSA prepayment assumption. The PSA ramp assumes the mortgages prepay slower in the first 30 months of seasoning. 100% PSA indicates a starting rate of 0.2% CPR increasing 0.2% per month for the first 30 months. A constant 6% CPR is assumed for the remaining life of the mortgage.

Principal Component Analysis

A method that measures the movements of the yield curve in terms of three main factors: level, slope, and curvature.

Privately Placed

Privately Placed is a negotiated sale in which the securities are sold directly to institutional or private investors, rather than a public offering. Such placements are not registered with the Securities and Exchange Commission.

Privately Traded Domestic Money Market Securities

For the purpose of this policy, defined as Section 4(2) commercial paper securities. Section 4(2) commercial paper is used to finance non-current transactions (i.e., acquisitions or stock buybacks). Paper issued under the 4(2) exemption is targeted to "accredited" investors (typically defined by Regulation D) who are deemed qualified to make investments by virtue of their industry or size.

Ratings (Rated)

Various alphabetical and numerical designations used by institutional investors, Wall Street underwriters, and commercial rating companies to give relative indications of bond and note creditworthiness. Standard & Poor's and Fitch use the same system, starting with their highest rating of AAA, AA, A, BBB, BB, B, CCC, CC, C, and D for default. Moody's Investors Services uses Aaa, Aa, A, Baa, Ba, B, Caa, Ca, C, and D. Each of the services use + or - or +1 to indicate half steps in between. The top four grades are considered investment grade ratings.

Real Return Relationships

The historical perspective looking at expected returns, less inflation with the expectation that the real return is mean reverting.

Reinvestment Risk

Reinvestment Risk is the uncertain future yield opportunities for investing funds that become available due to call, maturity, or coupon payments.

Repurchase Agreement

Agreement between a seller and a buyer, usually of U.S. government securities, whereby the seller agrees to repurchase the securities at an agreed upon price and, usually, at a stated time.

Scenario Analysis

Projects returns over a number of changing situations (such as interest rates, curve twists, spreads, etc.) and weighs each situation to arrive at an average expected return. This process allows comparisons to varying types of securities and portfolios.

Sector Risk

Sector Risk is the risk of holding sectors proportionally different from the index.

Security

Instrument that signifies an ownership position in a corporation (stock), a creditor relationship with a corporation or governmental body (bond), or rights to ownership such as those represented by an option, subscription right, and subscription warrant.

Senior Investment Officer of Global Fixed Income

The Senior Investment Officer is responsible for all Global Fixed Income programs and reports directly to the Chief Investment Officer of CalPERS.

Short Duration Program

A program managed by CalPERS staff that is designed to earn a return premium versus traditional short duration assets through a modest increase in portfolio duration and by purchasing a broader universe of short duration securities than those typically available to traditional money market portfolios.

Short Selling

Selling securities that are not owned and buying them back later to: 1) take advantage of an anticipated decline in the price; or 2) to protect a profit in a long position.

Sovereign

A security issued by a foreign government or government sponsored agency.

Speculation

Assumption of risk in anticipation of gain but recognizing a higher than average possibility of loss.

Split-Rated Security

A security that has a different credit classification by two rating agencies. For the purpose of this policy, a security is called a split-rated security, if Standard & Poor's and Moody's report a difference in the ratings.

Standard & Poor's (S&P)

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 10-symbol system. The ranges extend from the highest investment quality, which is AAA, to the lowest credit rating, which is D. Securities rated BBB- or greater are considered investment grade. Securities rated BB+ or below are considered speculative.

State Street Bank Short-Term Investment Fund

An institutional money market mutual fund managed by State Street Global Advisors.

Structure Risk

Structure Risk arises from the options implicit in bonds (e.g. callable and optional sinking fund bonds) or the rules governing cash flow that differs from expectations.

Structured Securities

An instrument that is secured by assets like receivables, mortgages, and bonds.

Examples of structured securities are asset backed securities, mortgage backed securities, commercial mortgage backed securities, collateralized mortgage obligations, collateralized debt obligations, and collateralized loan obligations.

Supranational Entities

Multinational organizations usually formed for providing financial assistance to less developed countries. Examples of supranational entities include the World Bank and the International Monetary Fund (IMF).

Swap

Private agreement between two companies to exchange cash flows in the future according to a prearranged formula.

Total Return Swap

A swap where the non-floating rate side is based on the total return of an instrument with a life longer than the swap. Total return swaps are also used to transfer credit exposure.

Tri-Party Repurchase Agreement

The same as a delivery versus payment repurchase agreement, except that in a Tri-Party Repurchase Agreement, the collateral is delivered to an independent third party trustee, as opposed to the investor's custody bank.

Uncovered Call

A strategy in which an investor writes (sells) call options on the open market without owning the underlying security. This stands in contrast to a covered call strategy, where the investor owns the security shares that are eligible to be sold under the options contract.

Variable Rate Note

Securities having a coupon or interest rate adjusted periodically on a set date. Typically, variable rate notes have coupons based on a longer-term rate index and are reset once a year or longer.

Weighted-Average Days to Maturity

The average number of days that each dollar of unpaid principal due in the portfolio remains outstanding.

Yankee (Bond) Sovereign

A foreign bond denominated in U.S. dollars that is registered with the Securities and Exchange Commission for sale in the U.S. For purposes of this policy, Yankee Sovereigns must be issued by companies domiciled in G11 countries, Australia, Ireland, or Scotland, and must be rated at least A3 (Moody's) and A- (Standard & Poor's).

Yield Curve

Graph showing the term structure of interest rates by plotting the yields of all bonds of the same quality with maturities ranging from the shortest to the longest available.

Yield Curve Risk

Yield Curve Risk is the price changes induced by the changing slope of the yield curve.